User Manual

LKS-CD17SR

17” LCD Single Rail Console Drawer with Modular KVM Switch

LKS-CD19SR

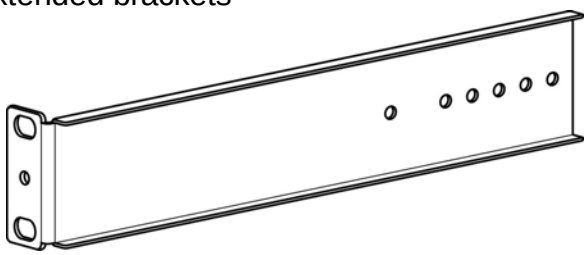
19” LCD Single Rail Console Drawer with Modular KVM Switch

Rev 2.0

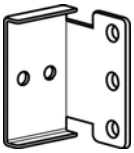
Packing List

The complete LKS-CD17SR / LKS-CD19SR single rail console with modular KVM switch package consist of:

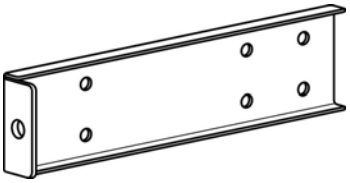
- One 1U 19” rack mount console
- Two rails with front and rear bracket
- Two extended brackets



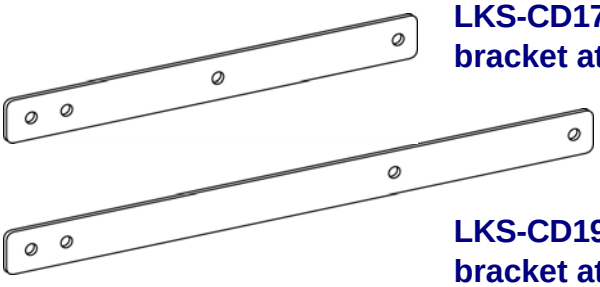
- Two Short brackets



- Two KVM switch brackets



- Two bracket attachments



LKS-CD17SR bracket attachment

LKS-CD19SR bracket attachment

- One 1.8 m KVM cable (HDDB-15 / VGA + PS/2 x 2)
- One USB cable
- One DC power adapter
- One power cord
- One user manual CD
- One quick installation guide
- Two keys
- Six flat screws (for rail mount to console body)
- Six screws (for replace extended bracket)

Check to make sure that the unit was not damaged in shipping. If you encounter a problem, contact your dealer.
Please read this manual thoroughly, and follow the installation and operation procedures carefully to prevent any damage to the product, and / or any of the devices that connect to it.

Safety Instructions

1. Please read these safety instructions carefully.
2. Please keep this User's Manual for later reference.
3. Please disconnect this equipment from AC outlet before cleaning. Don't use liquid or sprayed detergent for cleaning. Use moisture sheet or clothe for cleaning.
4. For pluggable equipment, the socked-outlet shall be installed near the equipment and shall be easily accessible.
5. Please keep this equipment from humidity.
6. Lay this equipment on a reliable surface when install. A drop or fall could cause injury.
7. Do not leave this equipment in an environment unconditioned, storage temperature above 60 ^{0}C, it may damage the equipment.
8. The opening on the enclosure is for air convection hence the equipment from overheating. DO NOT COVER THE OPENING.
9. Make sure the voltage of the power source connect the equipment to the power outlet.
10. Please keep the power cord such a way that people can not step on it. Do not place anything over power cord. The power cord must rate for the voltage and

current marked on the product's electrical ratings label. The voltage and current rating of the cord should be greater than the voltage and the current rating marked on the product.

11. All cautions and warning on the equipment should be noted.
12. If the equipment is not in use for long time, disconnect the equipment from mains to avoid being damaged by transient over-voltage.
13. Never pour any liquid into ventilation openings; this could cause fire or electrical shock.
14. Never open the equipment. For safety reason, qualified service personnel should only open the equipment.
15. If one of the following situations arises, get the equipment checked by service personnel.
    - The Power Cord or plug is damaged.
    - Liquid has penetrated into the equipment.
    - The equipment has been exposed to moisture.
    - The equipment has not worked well or you can not get it work according to User's Manual.
    - The equipment has dropped and damaged.
    - If the equipment has obvious signs or breakage.

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1. General Information

Single rail consoles with modular KVM switch offer industrial level input solution to optimize your space utilization by controlling your systems in just 1U. With the unique modular design, you can easily upgrade to more ports by just changing the KVM module. Cacscading more KVM modules allows you to control hundres of servers from one single console drawer.

1.1 Features

- Easy to install, single rail design.
- 17 / 19" LCD panel for option
- Optional 2nd console via IP module using a standard web browser
- Optional 2nd console via Cat 5 module up to 300 metres
- Supports Sun native resolution (17 / 19")
- Bright Active TFT display
- OSD function for LCD display and KVM switch
- Durable keyboard with touchpad
- Panel protected by tempered glass
- Touch panel (optional)
- Sun keys (optional)

1.2 Benefits

1. Modular KVM design. The user can start by purchasing a single console model and then expand to 8, 16 or even 32 ports by just changing the KVM module.
2. With the unique separate rail design, one person can install the console easily. If you need to remove the console, you can easily uninstall without effecting the server above or below.
3. Easy to maintain. If a fault is found in the KVM switch, you can just swap the KVM switch module without having to send the whole console back.

1.4 Product Specification

1.4.1 LKS-CD17SR Specification

Model name	LKS-CD17SR
Number of ports	1
Dimension	470.1 x 447.5 x 44 mm / 18.5 x 17.6 x 1.7 inches
Package Dimension	606 x 551.5 x 230 mm / 23.9 x 21.7 x 9.0 inches
Net Weight	13 Kg / 28.7 lbs
Gross Weight	20.5 Kg / 45.2 lbs
Display Size	17 inches
Panel Type	Active Matrix TFT LCD
Resolution Capabilities	Maximum Resolution up to 1280 x 1024 (SXGA)
Pixel Pitch	Supports 0.264 mm x 0.264 mm
Viewing Angle (CR>10)	Right-Left view 60° ~ 70°(Typ) Up-Down View 45° ~ 60°(Typ)
Contrast Ratio	450 : 1
Brightness	White 300 cd/m2
Back Light	Four Lamps for Back Light
Supported Colors	16.7M Colors (8-bit with FRC)
Response Time	Rising Time 2 ms, Decay Time 14 ms
Operating System	Dos, Windows (3.1, 9x, 2000, NT4, ME, XP, 2003 Server) Linux, Novell 3.12-6, HP UX, SUN
Multi Platform	Support PS/2 and USB
System Cables	VGA + PS/2 x 2 or VGA + USB x 1 cable
Keyboard Mouse	106 key PS/2 keyboard with touch pad
Sync	45 ~ 80 KHz
Power Source	100 ~ 240 VAC input
Power Consumption	25W, 19.05W for Panel
Temperature	Operate 0 ~ 50°C / 32 ~ 122°F Storage -20 ~ 60°C / -4 ~ 140°F
Humidity	10% ~ 90% RH
Chassis Construction	Heavy duty steel materials
Keyboard Language	USA, UK, German, French, Spanish, Italian, Portuguese, Dutch, Swiss, Belgium, Swedish, Norwegian, Danish, Japan, Taiwan, Russian, Hebrew
Certification	CE / FCC, UL / CUL / C-Tick, GOST

Table 1-1. LKS-CD17SR Specification

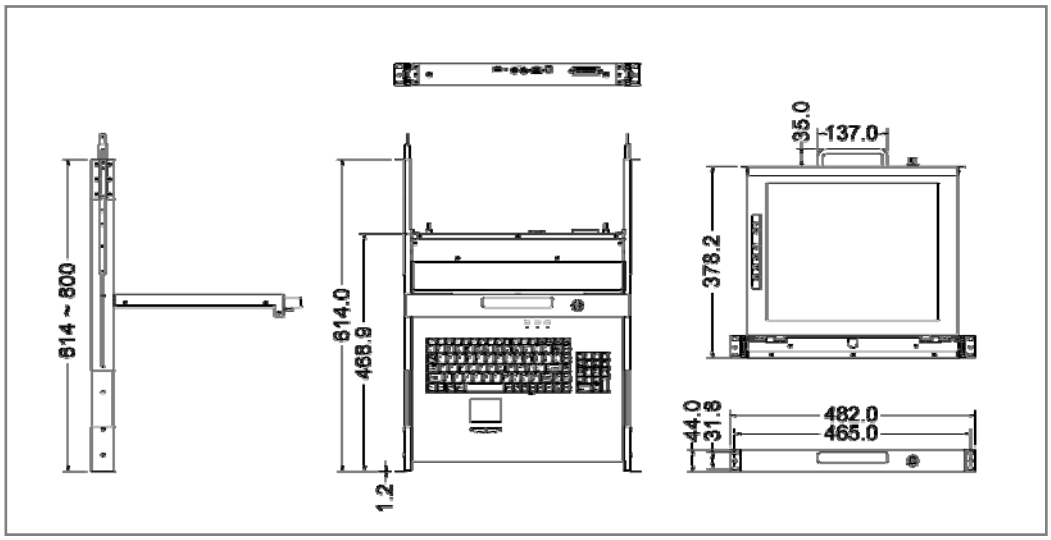


Figure 1-1. LKS-CD17SR Dimension

1.4.2 LKS-CD19SR Specification

Model name	LKS-CD19SR
Number of ports	1
Dimension	520.1 x 447.5 x 44 mm / 24.5 x 17.6 x 1.7 inches
Package Dimension	606 x 551.5 x 230 mm / 23.9 x 21.7 x 9.0 inches
Net Weight	14 Kg / 30.9 lbs
Gross Weight	21.5 Kg / 47.4 lbs
Display Size	19 inches
Panel Type	Active Matrix TFT LCD
Resolution Capabilities	Maximum Resolution up to 1280 x 1024 (SXGA)
Pixel Pitch	Supports 0.098 mm x 0.294 mm
Viewing Angle (CR>10)	Right-Left view 140°(Typ) Up-Down View 140°(Typ)
Contrast Ratio	500 : 1
Brightness	White 300 cd/m2
Back Light	Four Lamps for Back Light
Supported Colors	16.7M Colors (8-bit with FRC)
Response Time	Rising Time 2 ms, Decay Time 10 ms
Operating System	Dos, Windows (3.1, 9x, 2000, NT4, ME, XP, 2003 Server) Linux, Novell 3.12-6, HP UX, SUN
Multi Platform	Support PS/2 and USB
System Cables	VGA + PS/2 x 2 or VGA + USB x 1 cable
Keyboard Mouse	106 key PS/2 keyboard with touch pad
Sync	45 ~ 80 KHz
Power Source	100 ~ 240 VAC input
Power Consumption	25W, 21.05W for Panel
Temperature	Operate 0 ~ 50°C / 32 ~ 122°F Storage -20 ~ 60°C / -4 ~ 140°F
Humidity	10% ~ 90% RH
Chassis Construction	Heavy duty steel materials
Keyboard Language	USA, UK, German, French, Spanish, Italian, Portuguese, Dutch, Swiss, Belgium, Swedish, Norwegian, Danish, Japan, Taiwan, Russian, Hebrew
Certification	CE / FCC, UL / CUL / C-Tick, GOST

Table 1-2. LKS-CD19SR Specification

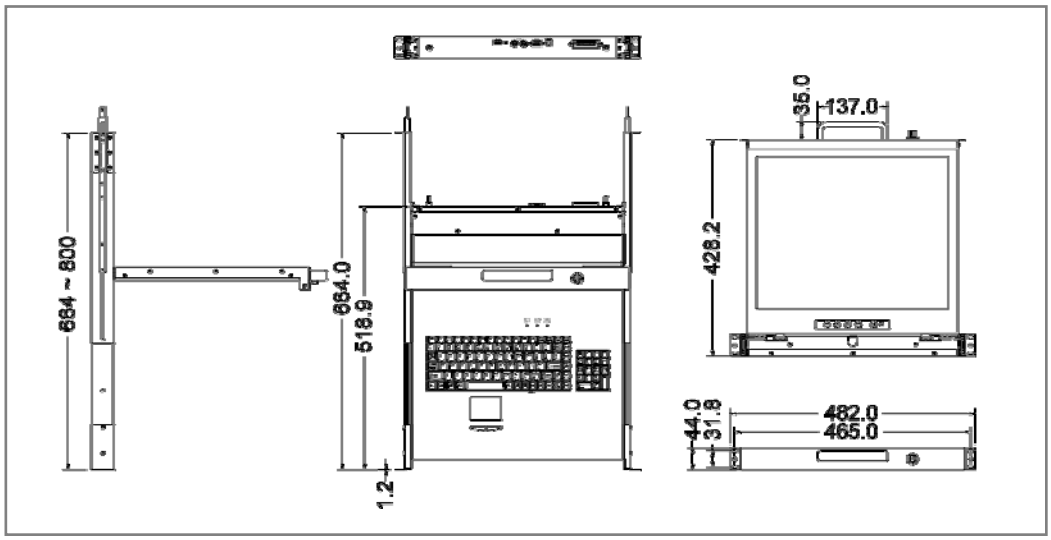


Figure 1-2. LKS-CD19SR Dimension

2. Panel Controls and OSD Function

Controls	Description
⏻	Soft power on/off button. Adjacent LED is lit when on.
Auto	Auto-synchronize and scale down display to any valid factory preset timings.
▲	Press to scroll the function you want to adjust.
▼	Press to scroll the function you want to adjust.
Menu	To access the main menu. This button also acts as the “Enter” button.

Table 2-1. Panel Controls

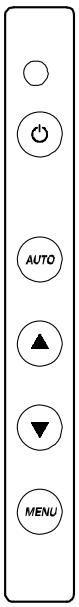


Figure 2-1. 15 / 17" Single Rail Console with Modular KVM Switch OSD Control Bar

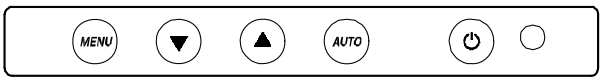


Figure 2-2. 19 / 20.1" Single Rail Console with Modular KVM Switch OSD Control Bar

2.1 Auto Tune

Press the “auto tune” button. The panel will adjust the display size automatically and also tune the panel to its best condition.

2.2 Input Source

1. Press the “menu” button.
2. Use the “Down” and “Up” button to scroll.

   Auto tune.
   Input Source
   Brightness
   Contrast
   Color
   Position
   Language
   Recall
   Exit

3. Press the“menu”button to enter,and you will see:

   VGA / DVI
4. Use the “Down” and “Up” button to select the input source of signal.
5. Press the “menu” button to enter

2.3 Brightness

1. Press the “menu” button.
2. Use the “Down” and “Up” button to scroll.

   Auto tune.
   Input Source
   Brightness
   Contrast
   Color
   Position
   Language
   Recall
   Exit
3. Press the“menu”button to enter.
4. Use the“Down”and“Up”button to adjust the brightness of the display.
5. Press the “menu” button to enter.

2.4 Contrast

1. Press the “menu” button.
2. Use the “Down” and “Up” button to scroll.

    Auto tune.
    Input Source
    Brightness
    Contrast
    Color
    Position
    Language
    Recall
    Exit

1. Press the “menu” button to enter.
2. Use the “Down” and “Up” button to adjust the contrast of the display.
3. Press the “menu” button to enter.

2.5 Color

1. Press the “menu” button.
2. Use the “Down” and “Up” button to scroll.

    Auto tune.
    Input Source
    Brightness
    Contrast
    Color
    Position
    Language
    Recall
    Exit

3. Press the “menu” button to enter. And you will see:

Icon	Description
9300°K	To set CIE coordinates at 9300°K color
7500°K	To set CIE coordinates at 7500°K color
6500°K	To set CIE coordinates at 6500°K color
User	To set user defined CIE
Auto color	To auto adjust color
Return	To exit and return to the previous page

Table 2-2. Icon Description

4. Use the “Down” and “Up” button to adjust the color of the display.
5. Press “menu” to enter.

2.6 Position

1. Press the “menu” button.
2. Use the “Down” and “Up” button to scroll.
   - Auto tune.
   - Input Source
   - Brightness
   - Contrast
   - Color
   - **Position**
   - Language
   - Recall
   - Exit
3. Press the “menu” button to enter. And you will see:

Icon	Description
Image Pos	To adjust the position of the image.
OSD Pos	To adjust the position of the OSD.
Return	To exit and return to the previous page

Table 2-3. Icon Description

4. Use the “Down” and “Up” button to scroll.

5. Press the “menu” button to enter.

2.7 Language

1. Press the “menu” button.
2. Use the “Down” and “Up” button to scroll.
   Auto tune.
   Input Source
   Brightness
   Contrast
   Color
   Position
   Language
   Recall
   Exit
3. Press the “menu” button to enter. And you will see:
   English
   German
   French
   Italian
   Spanish
4. Use the “Down” and “Up” button to scroll.
5. Press the “menu” button to enter.

2.8 Recall

1. Press the “menu” button.
2. Use the “Down” and “Up” button to scroll.
   Auto tune.
   Input Source
   Brightness
   Contrast
   Color
   Position
   Language
   Recall
   Exit

3. Press the “menu” button to enter, and you will see:

   Yes/ No

4. Select “Yes” button then ‘Menu” button to recall the factory setting.
   Select “No “ to return to the previous page.

2.9 Exit

Press the “exit” button to quit OSD menu.

2.10 Power Indicator

- GREEN ON
- RED STANDBY
- RED SUSPEND
- RED OFF

OSD – On Screen Display

3. Installation

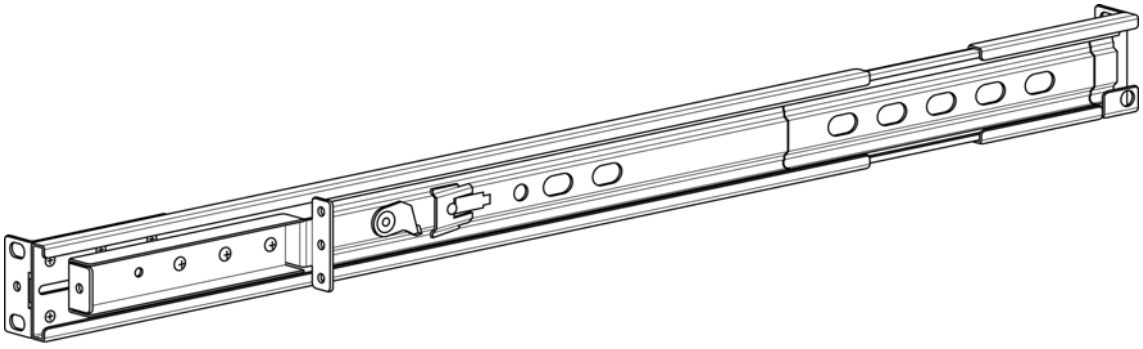
3.1 Install 17” / 19" Single Rail Console into Cabinet

3.1.1 Notes

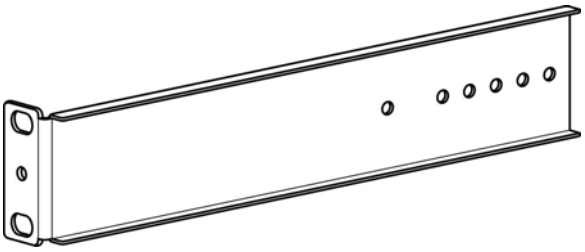
1. Please check all components according to the contents list before installation to make sure none of the components were damaged or lost during shipping. If you encounter any problem, please contact your dealer.
2. Before installation, make sure all peripherals and computers have been turned off.
3. The cabinet depth range must be between 504 ~ 1000 mm for LKS-CD17SR (554 ~1000 mm for LKS-CD19SR).
4. For cabinet depth between 614 ~ 800 mm for LKS-CD17SR (664 ~ 800 mm for LKS-CD19SR), please refer to **“Step A”.**
5. For cabinet depth between 504 ~ 614 mm for LKS-CD17SR (554 ~ 614 mm for LKS-CD19SR), please refer to **“Step B”.**
6. For cabinet depth between 800 ~ 1000 mm, please refer to **“Step C”.**
7. Reliable grounding of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit.

3.1.2 Hardware Kits Contents

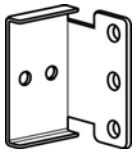
1. Rail with front and rear bracket x 2 (Please identify the brackets. Right and left sides are different.)



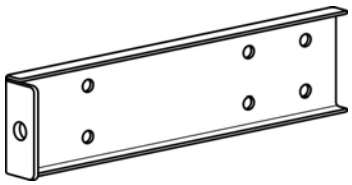
2. Extended bracket x 2



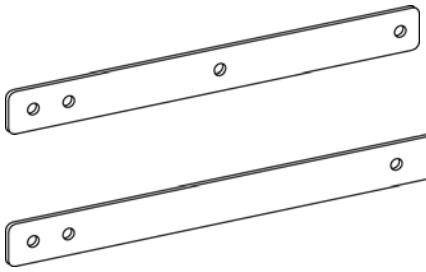
3. Short bracket x 2



4. KVM switch bracket x 2



5. Bracket attachment x 2



17" LCD console bracket attachment

19" LCD console bracket attachment

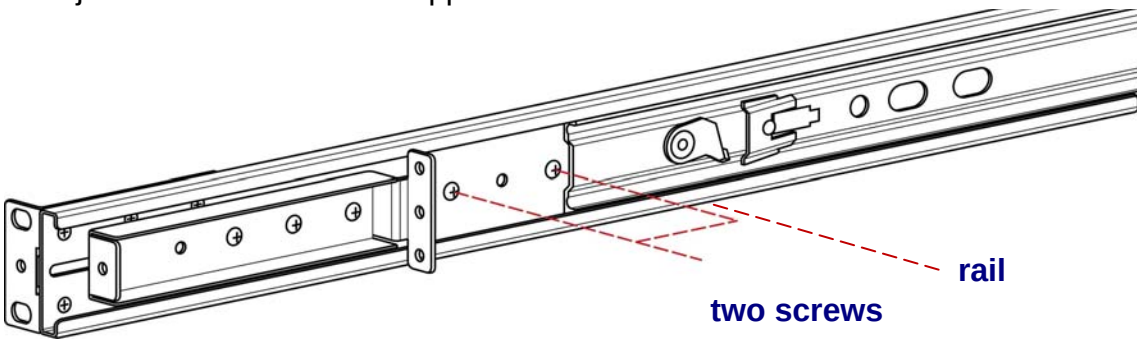
6. Screw (length = 6 mm) x 6

7. Screw x 6

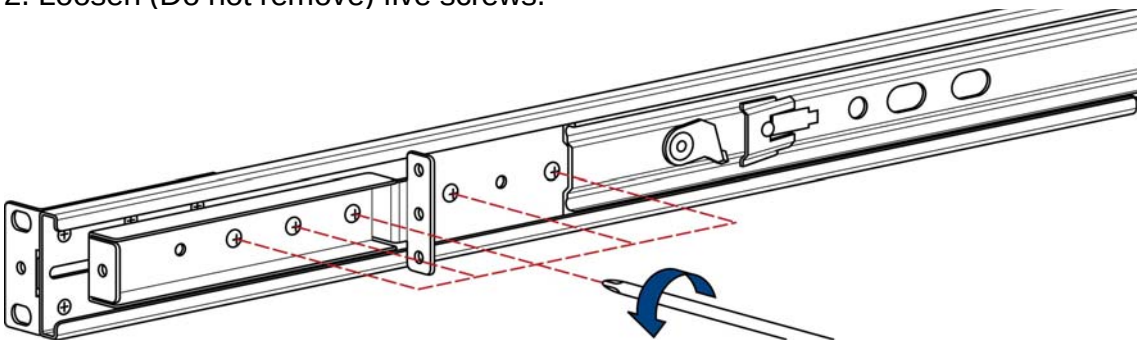
8. Key x 2

3.1.3 Step A (Install Console)

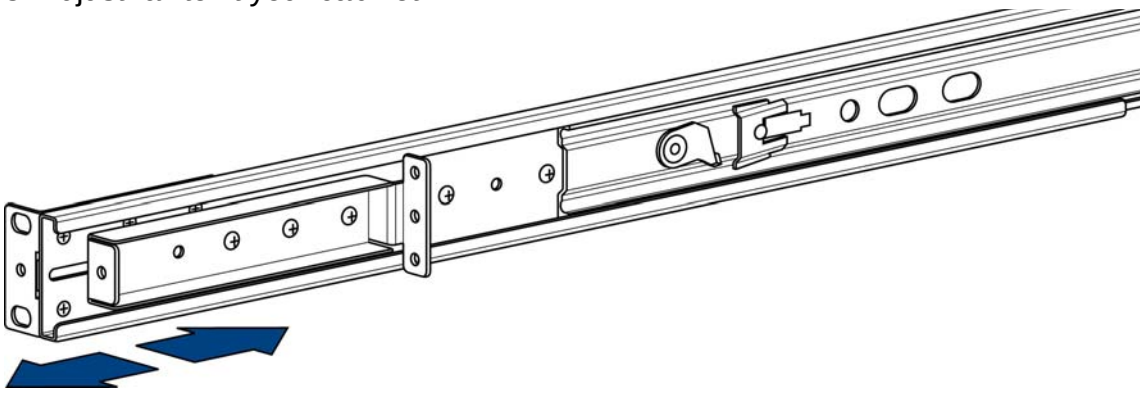
1. Adjust rail until two screws appear.



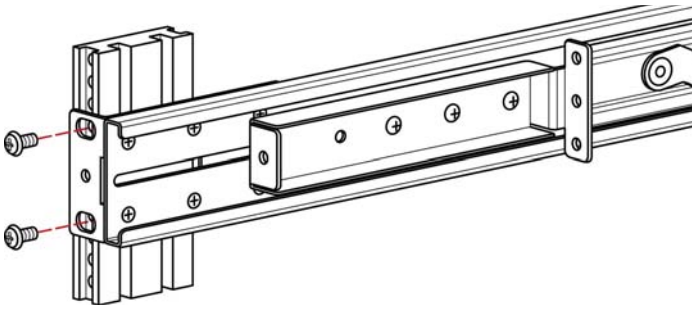
2. Loosen (Do not remove) five screws.

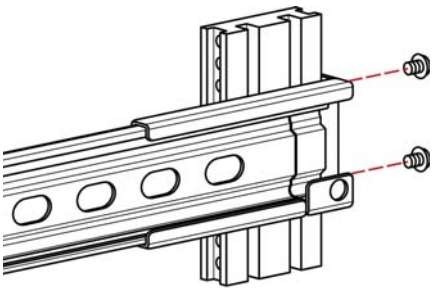


3. Adjust rail to fit your cabinet

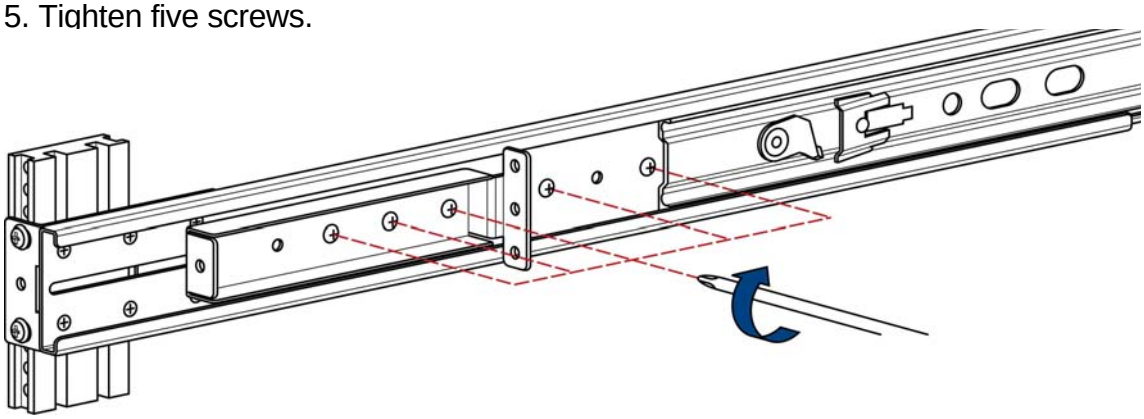


4. Install front and rear bracket on cabinet.

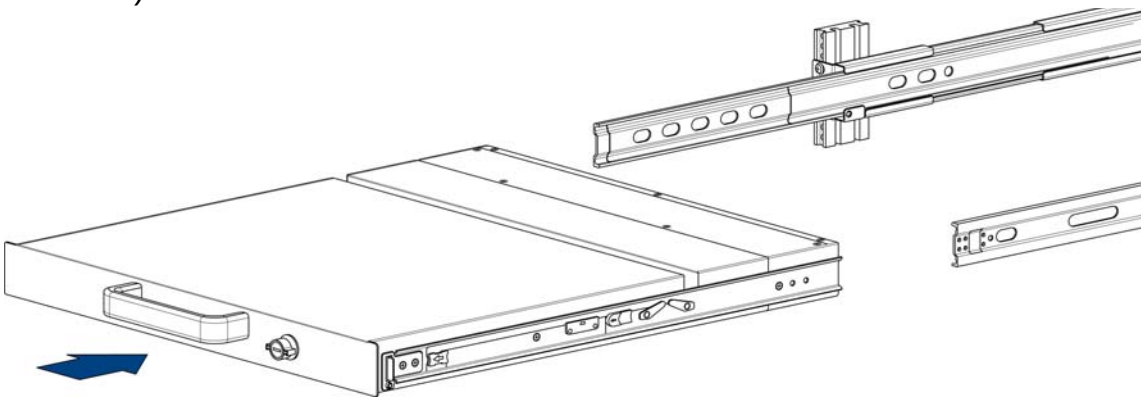




5. Tighten five screws.



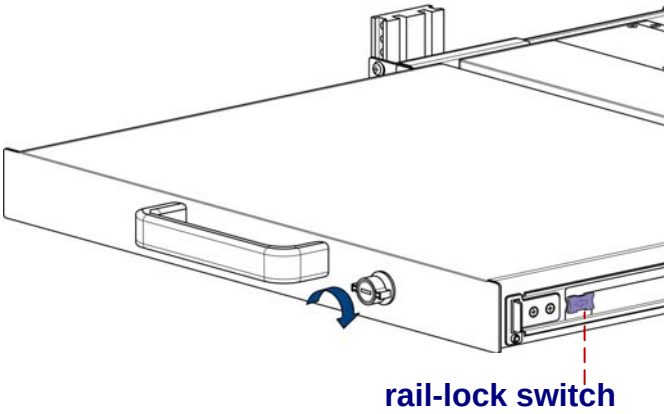
6. Repeat step 1~5 for the other side.
7. Push console into rails. (Be careful rear box loose when take out console from carton.)



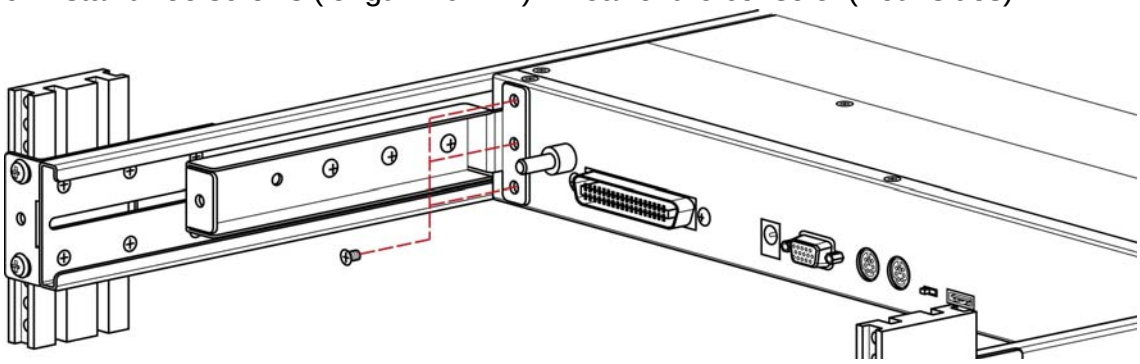
8. Unlock and pull rail–lock switch (left and right at the same time) then push console to the end.

lock

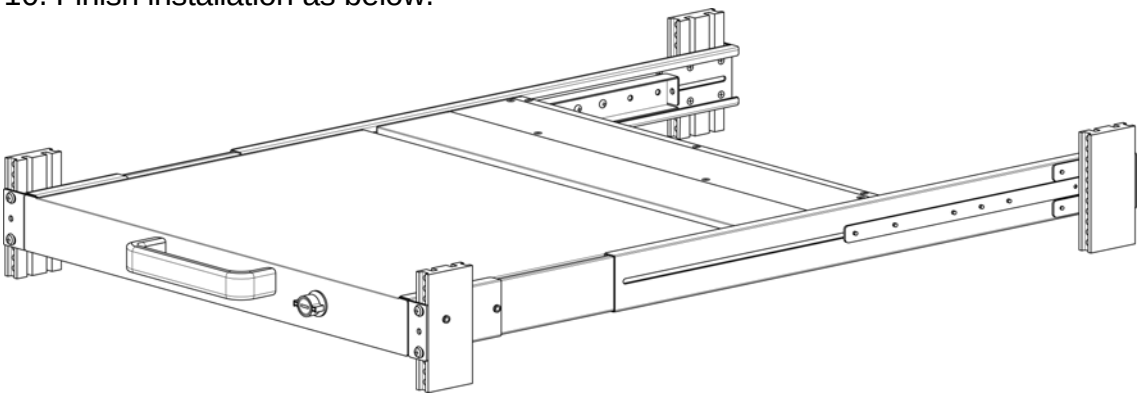
unlock



9. Install three screws (length = 6 mm) in rear of the console. (Both sides)

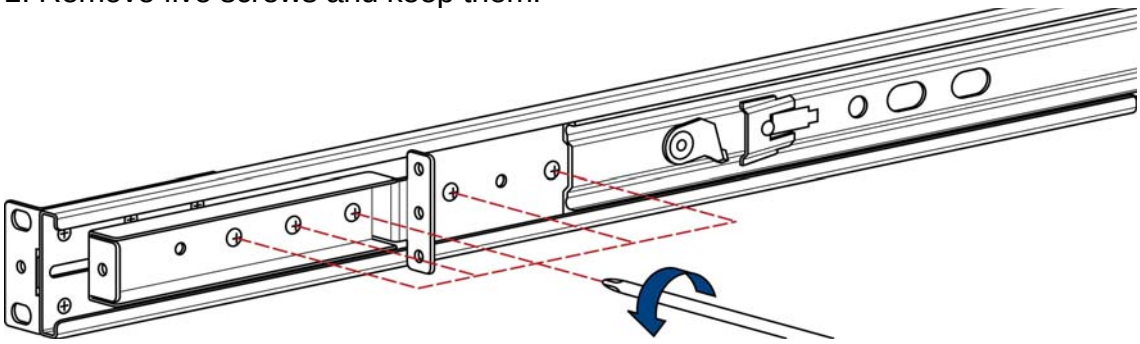


10. Finish installation as below.

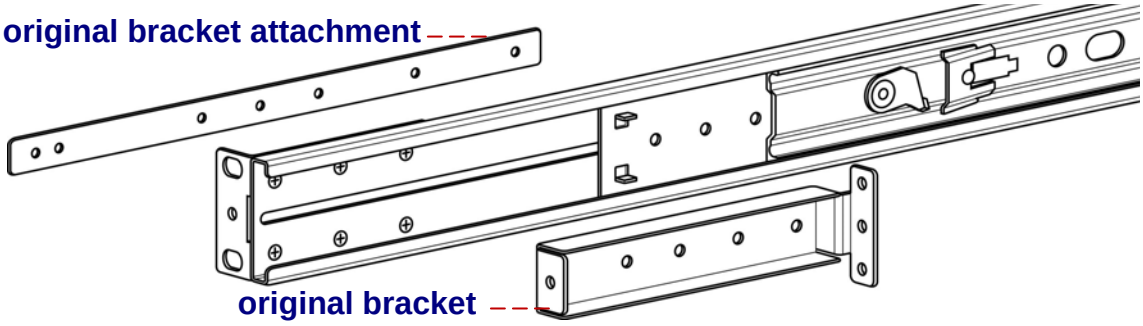


3.1.4 Step B (Replace short bracket)

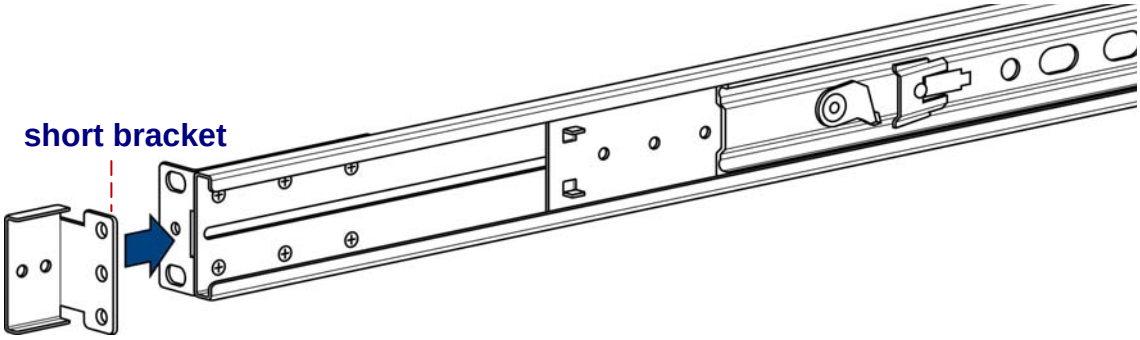
1. Remove five screws and keep them.



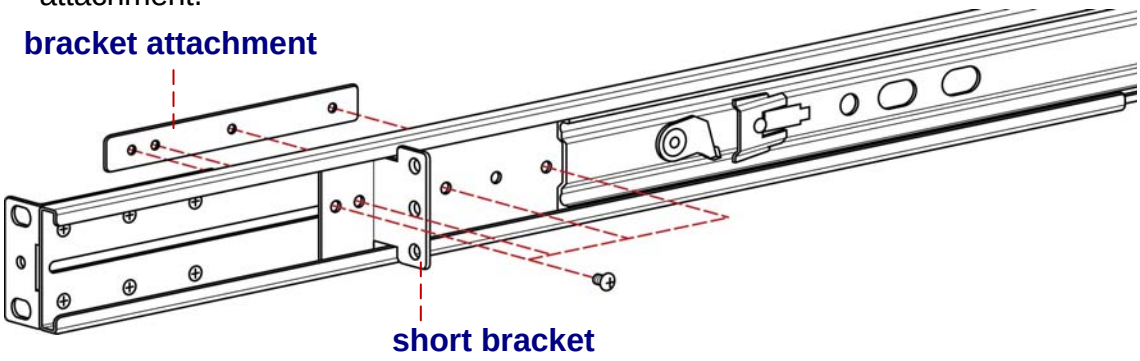
2. Take two original brackets out.



3. Put short bracket to rear of the rail.



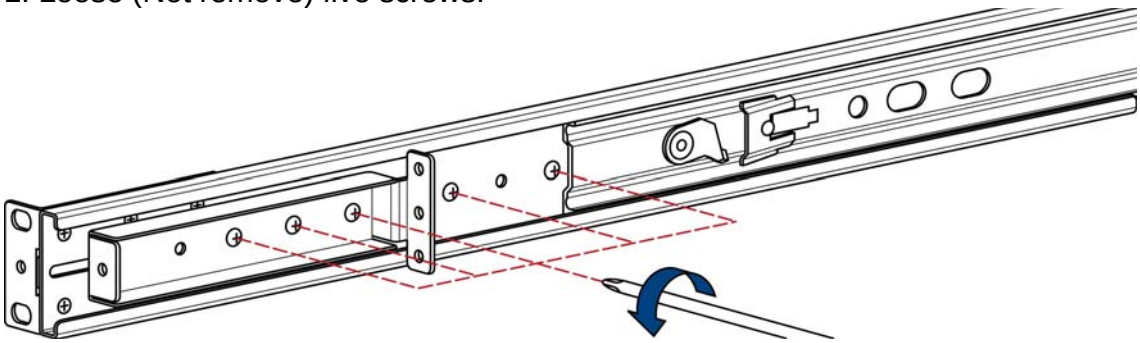
4. Install four screws (don't tight-up) to combine rail, short bracket and bracket attachment.



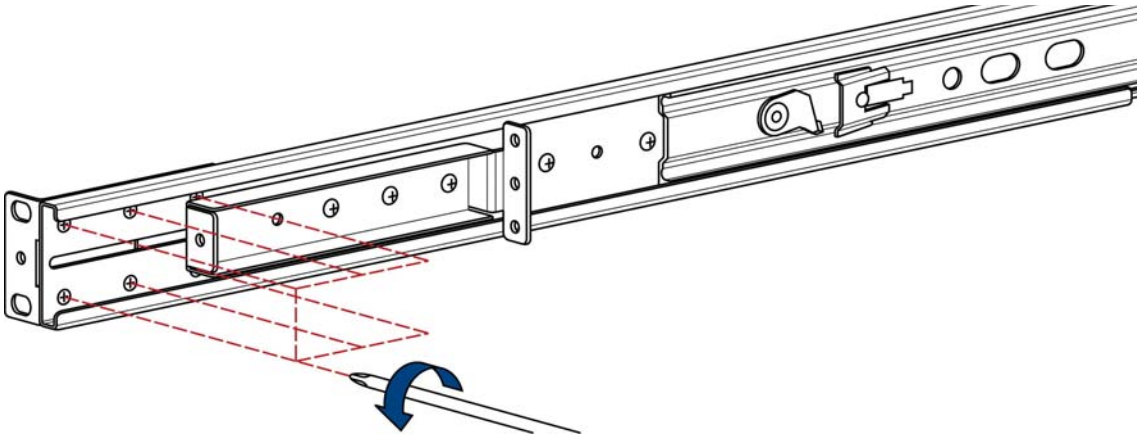
5. Repeat step 1 ~ 4 for the other side.
6. Repeat step 3 ~ 10 of step A to finish the installation.

3.1.5 Step C (Replace extended bracket)

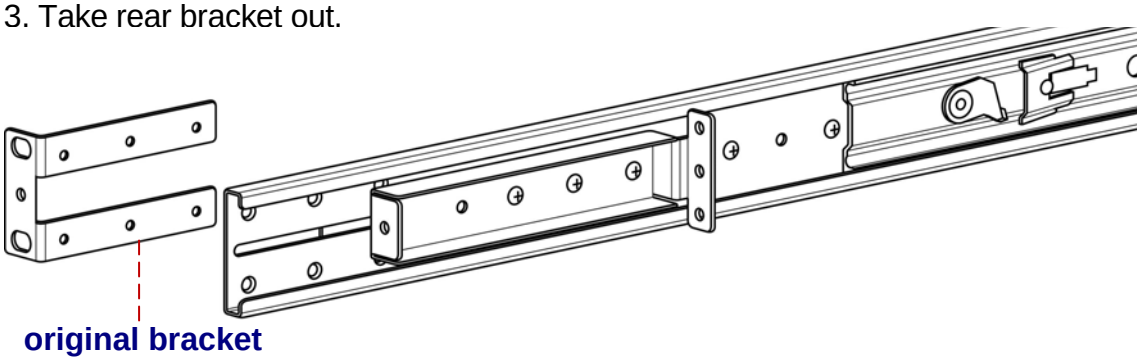
1. Loose (Not remove) five screws.



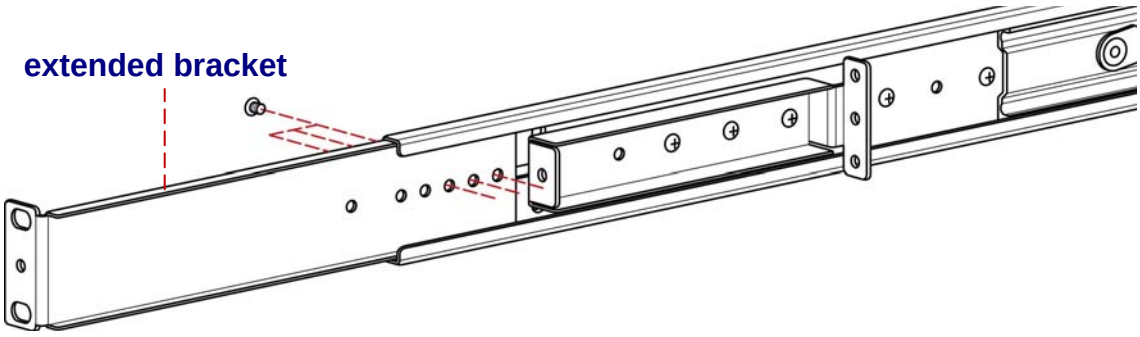
2. Adjust rail and release six screws.



3. Take rear bracket out.



4. Adjust rail and input extended bracket to rear of the rail then adjust extended bracket to fit your cabinet. Install unless 2~3 screws (don't tight-up) upon the length you need. One is forbidden.

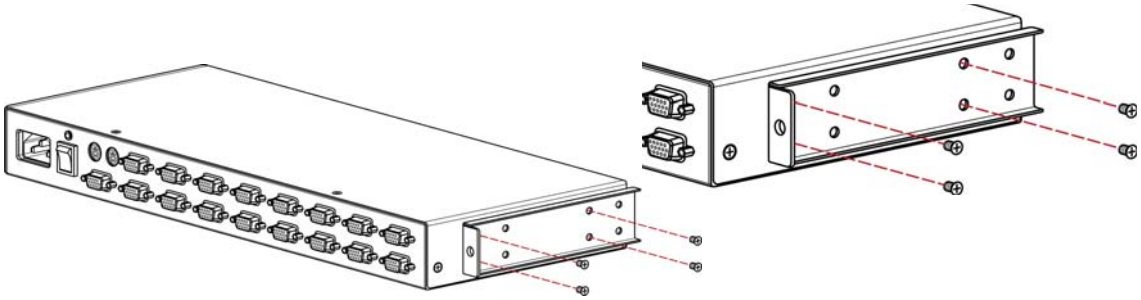


5. Repeat step 1 ~ 4 for the other side.
6. Repeat step 3 ~ 10 of step A to finish the installation.

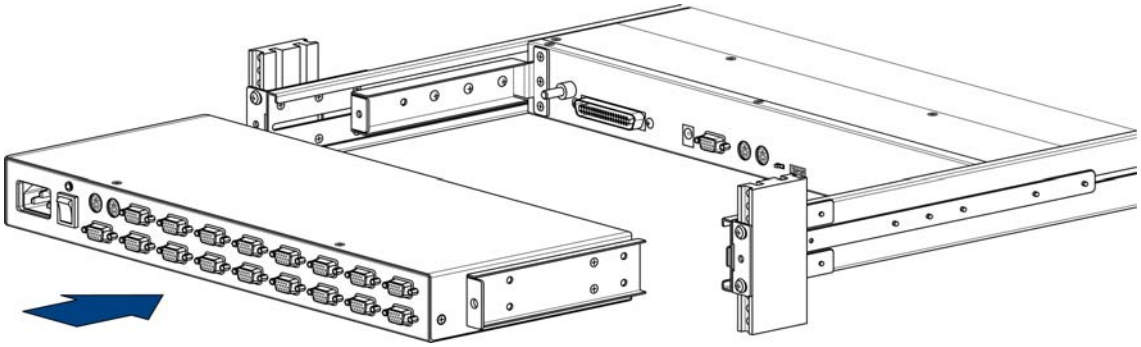
3.2 Install Modular KVM Switch

3.2.1 Install Combo KVM Switch (8 / 16 Port High Density 15 Pin KVM)

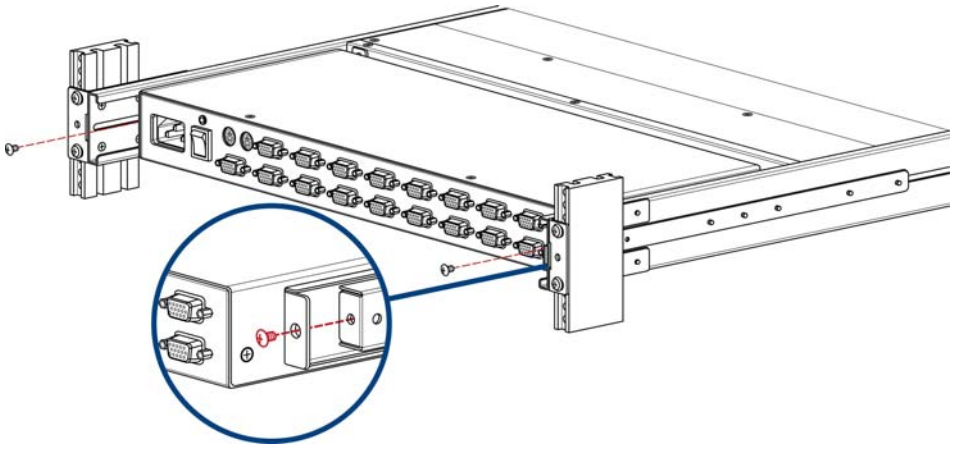
1. Install four screws to combine bracket and KVM switch. (Both sides)



2. Push KVM switch into the rails from rear of console.



3. Install two screws to combine KVM switch and console.

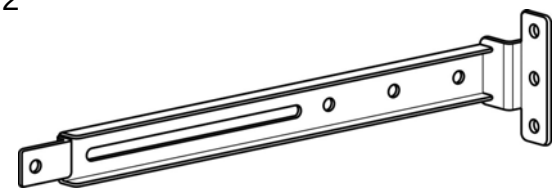


3.2.2 Install Cat 5 KVM Switch (8 / 16 / 32 Port Cat 5 KVM Switch)

Hardware Kits Contents

1. Bracket with thumb screw x 2

2. Bracket x 2

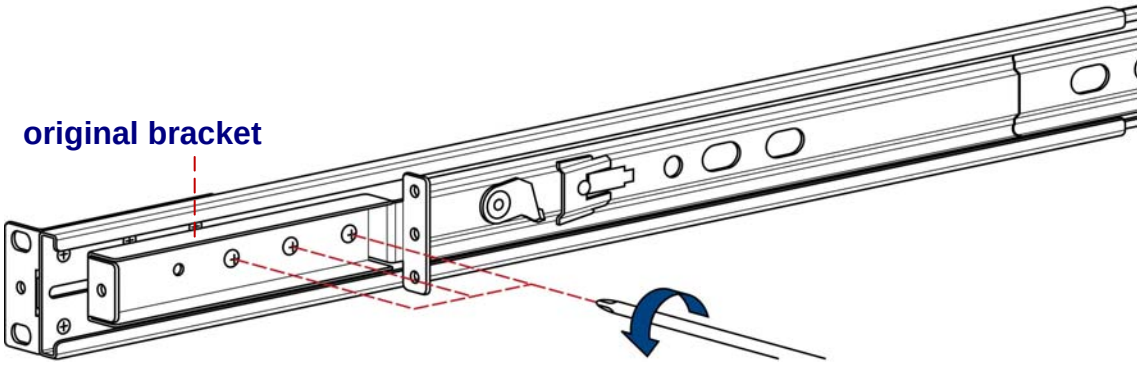


3. Screw (length = 6 mm) x 4

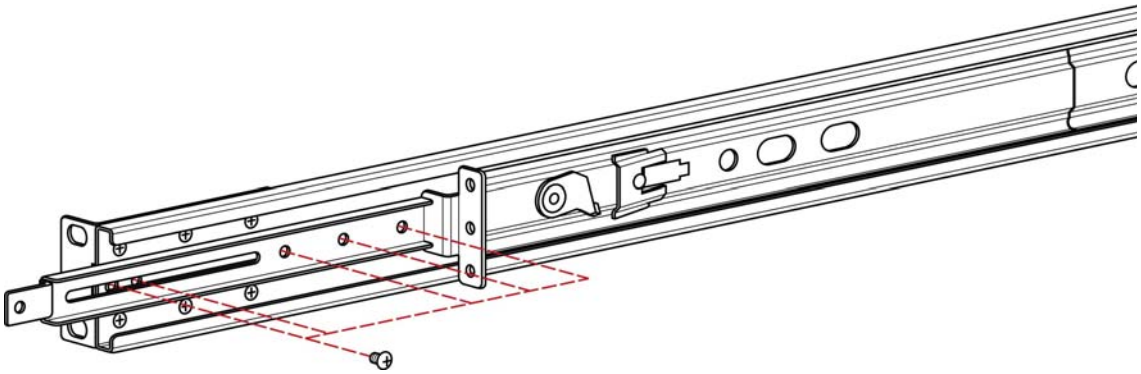
4. Screw x 4

Install KVM Switch Steps

1. Remove three screws and take original bracket out. (Both sides)

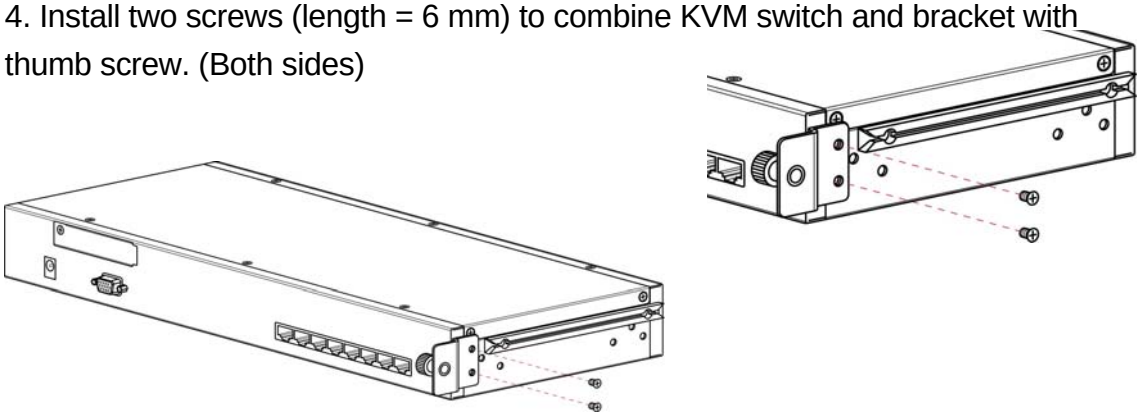


2. Install five screws to combine rail, bracket and original bracket attachment. (Both sides)

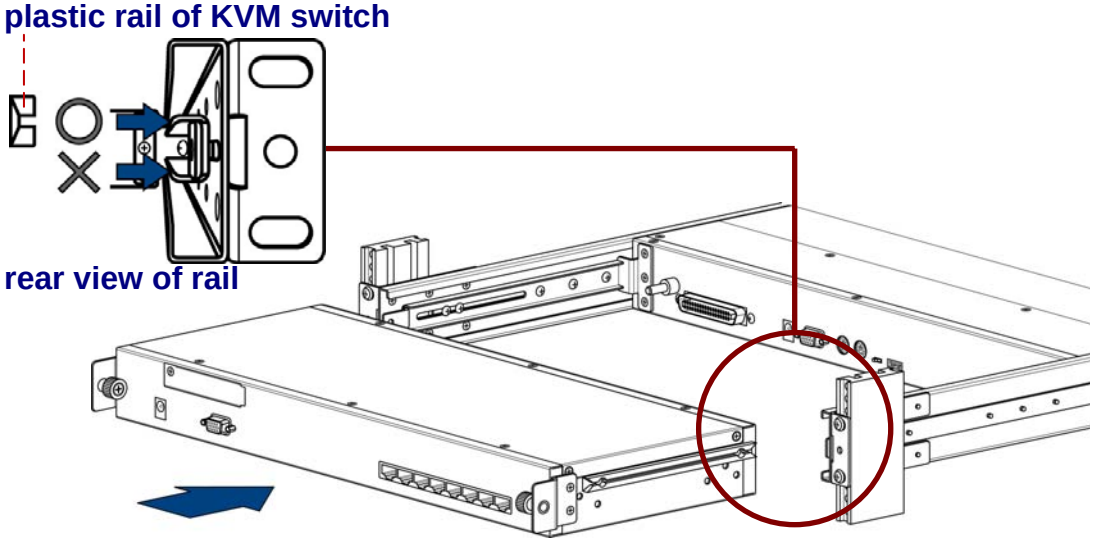


3. Follow the steps to install console into the cabinet.

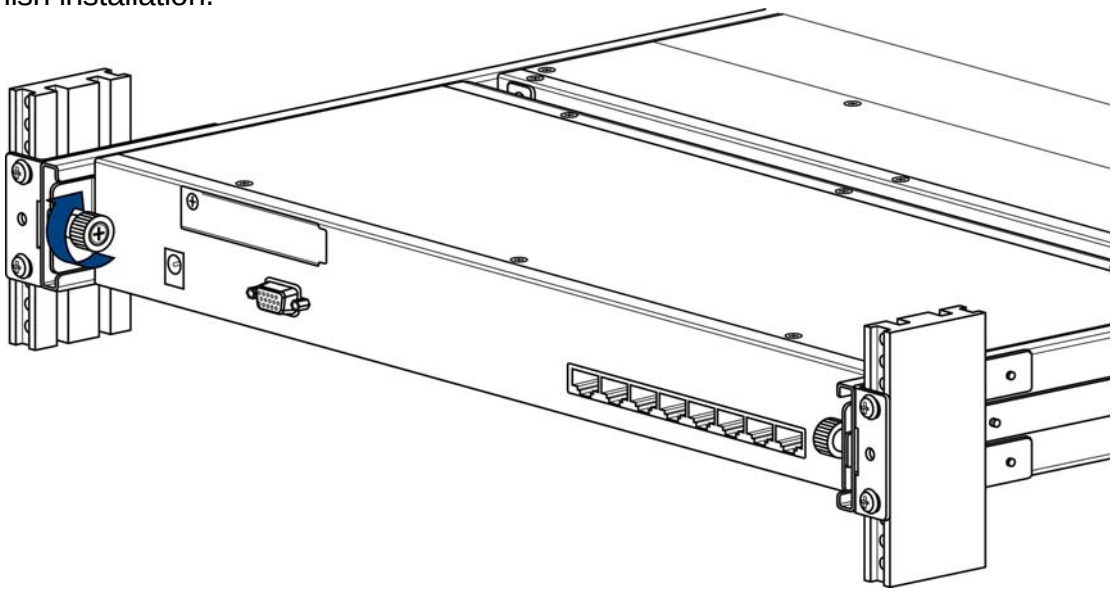
4. Install two screws (length = 6 mm) to combine KVM switch and bracket with thumb screw. (Both sides)



5. Push KVM switch into the rails from rear of console

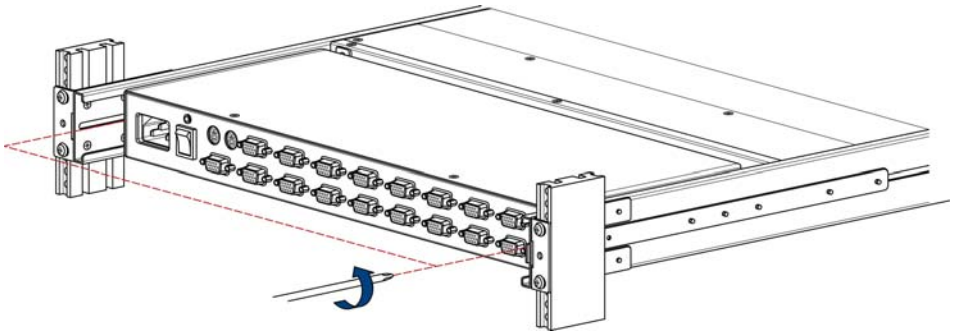


6. Tight thumb screw of bracket up to fix KVM switch in console (Both sides) and finish installation.

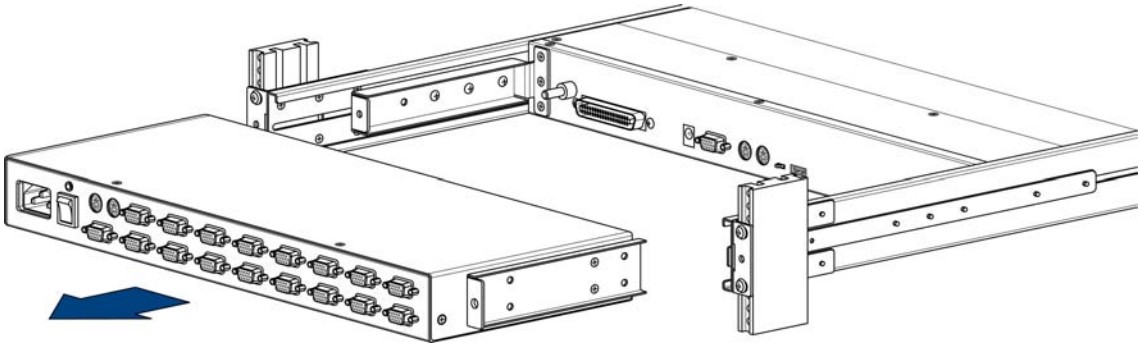


3.2.3 Unload Steps

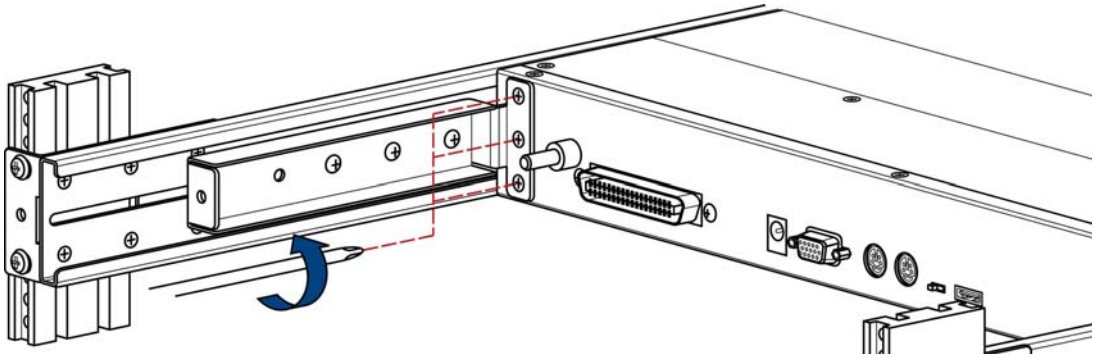
1. Make sure the console has been locked and turned off. Loosen two screws (thumbscrews on Cat 5 KVM)



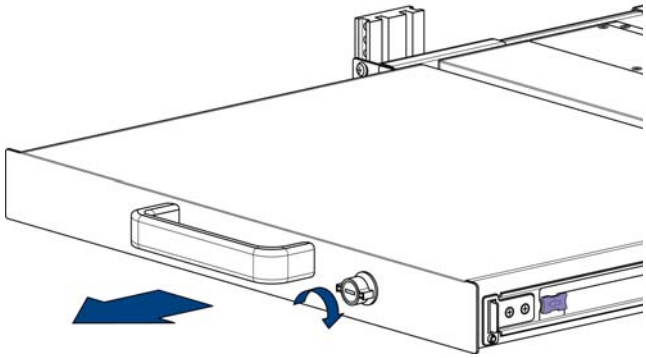
2. Pull out modular KVM switch.



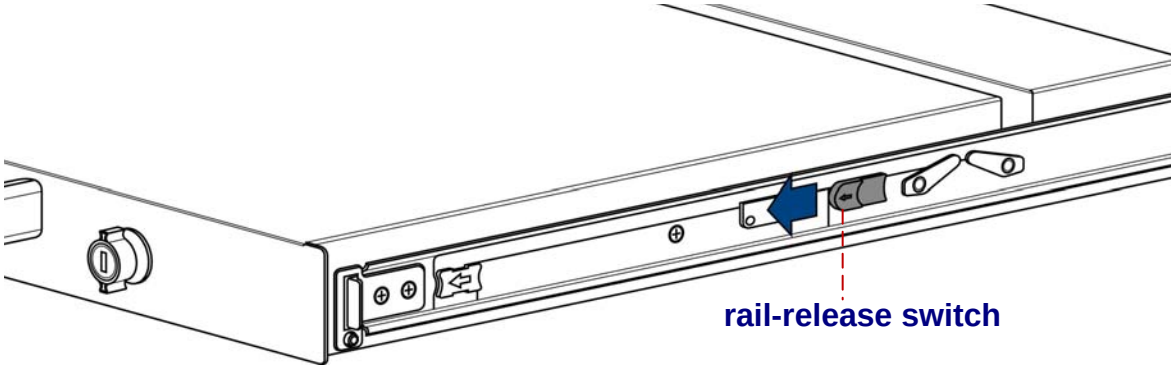
3. Release three screws in rear of the console. (Both sides)



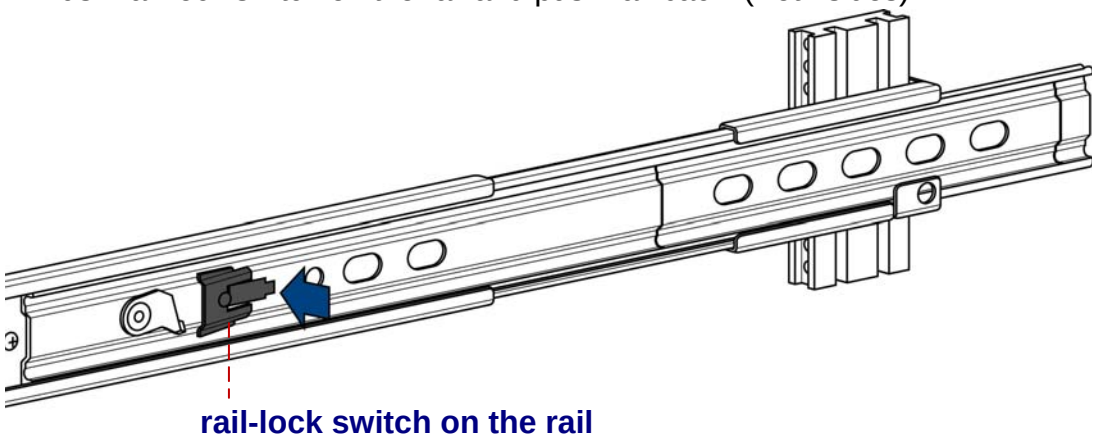
4. Unlock and pull console out until the console cannot go any further.



6. Pull rail-release switch and pull console out.



7. Push rail-lock switch on the rail and push rail back. (Both sides)



3.3 Installing the Video Card and Video Driver

Before connecting the LCD console, make sure your computer has a video card already installed for the panel. After you connect the console, install the video software driver. The video driver is supplied by the video card manufacturer and may be found on the CD-ROM that came with your computer. If you need information on installing a video card or video driver, refer to the manual that came with your video card.

3.3.1 Configuring the Display Settings

After connecting the console and turning on your computer, you may need to configure one or more of the following display settings:

- Display mode (also called desktop area or video resolution)
- Refresh rate (also called vertical scan rate or vertical sync)
- Color depth (also called color palette or number of colors)

Each video card has several controls that let you adjust the display settings. However, the software and driver for each video card is unique. In most cases, you adjust these settings by using a program or utility provided by the manufacturer of the video card. Most video cards use the Windows Display Properties control panel to configure the display. To open the Windows Display Properties, click the right mouse button in a blank area of the Windows desktop and then select **Properties.** The Settings tab usually lets you change the Color Palette and the Desktop Area *(x by y* pixel resolution).

Some video cards integrate additional features into the Windows Display Properties control panel to give you an exceptional setup that is flexible and easy to use. For example, the control panel may include an Advanced Properties button, an Adjustment tab, or a Refresh tab for changing other settings. Other video cards have a separate utility for setting display properties.

Whenever you change the resolution, color, or refresh rate, the image size, position, or shape may change. This behavior is normal. You can readjust the image using the panel on-screen controls. For more information on the panel on-screen controls, refer to Chapter 2. For more information on configuring the display settings, refer to the manual that came with your video card.

3.3.2 Connecting the Console

To connect an LCD console to a computer, perform the following steps

Figure 3-1. The rear view of LCD console

1. Turn off your computer.
2. Connect the video (VGA) connector of the KVM cable to the video card connector on the rear panel of your computer.
3. Identify and connect the PS/2 mouse and PS/2 keyboard connector to the correct PS/2 ports on the rear panel of your computer. Or you can use USB interface to connect your computer. (Use PS/2-USB switch to select your interface. The switch has to be on PS/2 side when you use PS/2 interface connector.)

Note

Please don't plug PS/2 and USB cables at the same time

4. Connect the AC to DC power adapter to the power inlet on the console and then to a power outlet.

3.3 Turning on the Console

Make sure all cables and the AC to DC power adapter are connected properly. Be sure to tighten all connector screws. Grab the front handle. Pull the console all the way out then lift the panel up. This will disengage the momentary on/off switch and the unit should power on. The LED on the left or underneath of the panel will be green light.

3.4 Testing the Console

To test that the console is working properly, perform the following steps:

1. Power up the console, and then turn on your computer.
2. Make sure the video image is centered within the screen area. Use the OSD controls to adjust the image (see note below) or press the Auto button on the left or underneath of the panel.

If the unit does not power on when the panel is pulled up, try to push the power on/off button underneath or on the left of the LCD panel to power up the unit.

You can adjust the horizontal and vertical position, contrast, and brightness to better suit your video card and your personal preference. Refer to Chapter 2 for more information on using the on-screen menu to adjust the video display.

Before you begin, make sure that powers to all the devices you will be connecting up have been turned off. To prevent damage to your installation due to ground potential difference, make sure that all the devices on the installation are properly grounded. Consult your direct vendor for any technical issues if necessary.